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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,153	12/14/2001	Bill Mitchell	501641	2634

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EXAMINER

COCKS, JOSIAH C

ART UNIT	PAPER NUMBER
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3743

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,153

Applicant(s)

MITCHELL ET AL

Examiner

Josiah C. Cocks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings filed 12/14/01 are accepted by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the regulating piston assembly" in lines 11-12. There is insufficient antecedent basis for this limitation in the claim. As best can be determined and for the purpose of an examination on the merits this limitation has been regarded as --the regulating valve assembly--. Correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Harwath et al.* (US # 5,692,680) (cited by applicant) in view of *Nakamura et al.* (US # 4,544,349).

Harwath et al. discloses in Figure 1 a fuel oil supply circuit for supplying fuel oil to a nozzle in an oil burner substantially as described in applicant's claims 1-20 including an oil pump (13), an oil regulating valve (27), a diaphragm valve (28) connected to the pump in parallel with the regulating valve assembly (see Fig. 1). The regulating valve (27) includes a piston and spring assembly (see col. 6, lines 5-42).

Harwath et al. does not disclose that the regulating valve is electrically controlled by means of a solenoid valve.

Nakamura et al. teaches a fuel oil supply assembly for an oil burner in the same field of endeavor as *Harwath et al.* wherein the assembly of *Nakamura et al.* includes an oil regulating valve assembly that includes a electrically controlled solenoid (66) that is controlled by an electrical control of the burner (see col. 4, line 30, through col. 5, line 33).

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Therefore, in regard to claims 1-20, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the fuel oil supply circuit of *Harwath et al.* to include a electrically controlled solenoid oil regulating valve as taught by *Nakamura et al.* as such a device desirable functions as a safety mechanism in controlling fuel flow in the even to a power stoppage (see *Nakamura et al.*, col. 1, line 61 through col. 2, line 16) and the solenoid valve functions to achieve low and high rates of combustion as desired (see *Nakamura et al.*, col. 5, lines 11-19).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Bears et al.*, *Mills*, *Donnelly et al.*, *Zachary et al.*, *Dyer et al.*, *Marran et al.*, GB 2 099 130, and JP 2-13707 are included to further show the state of the art concerning fuel flow regulating.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett, can be reached at (703) 308-0101. The fax phone numbers for this Group are (703) 308-7764 for regular communications and (703) 305-3463 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc
September 2, 2003


JOSIAH COCKS
PATENT EXAMINER
ART UNIT 3743